

22798

Producing single crystals of ...

S/070/61/006/003/009/009
E073/E535

established that saturation was reached when about 40 ml TiCl_4 was added to 100 ml of water. The concentration of the obtained solution was determined by precipitating titanium with ammonia and subsequent weighing in the form of TiO_2 . Then, a 25% solution of SrCl_2 was prepared and both solutions were mixed; the obtained cold mixture was poured into a prepared 10% solution of hot ammonium oxalate. For neutralizing the forming oxide, ammonia was added until a smell could be detected. The obtained precipitate of a double salt of Sr and Ti oxalate was washed in water to remove chlorine, dried and sintered at 450°C for one hour so as to obtain SrTiO_3 . After sintering, the powder was crushed in a porcelain mortar to such a size that it should pass through a sieve with 1000 holes per cm^2 . Single crystals of SrTiO_3 were grown according to the Verneuil method in a corundum furnace. SrTiO_3 forms with silit rods, which are used as supports, easily fusible compounds, as a result of which the base of the crystal becomes soft. To prevent this, the base of the cone of the charge should be located in a zone with sufficiently low temperatures. It was established experimentally that the base of the cone should be at a distance of 3 cm from the top at the instant of formation of a

Card 2/6

22798

Producing single crystals of ...

S/070/61/006/003/009/009
E073/E535

drop on it ($t \approx 2000^\circ\text{C}$); therefore, prior to drop formation, the charge cone was 3 cm high. In a number of experiments bases were used which were made of pressed SrTiO_3 powder sintered at 1400°C . The crystals were grown without germinations at an average speed of 10 to 30 mm/hour. The flame conditions varied from a reducing one to an oxidizing one. Under oxidizing conditions, bright transparent crystals 30 mm long with a diameter of over 5 mm were produced. The reflection index determined by the immersion method equalled 2.39. According to spectrum analysis, the contents of the admixtures did not exceed the following values in %: Mg - 0.006, Si - 0.006, Al - 0.01, Fe - 0.003. The produced single crystals were annealed to remove internal stresses. Then, slices 6 x 5 x 1 mm were cut perpendicularly to the axis of growth. Silver electrodes were burned on after the coherence of the surface had been checked by a microscope. The dielectric constant varied between 315 and 320 and was independent of frequency. At sonic frequencies $\text{tg } \delta$ did not exceed 0.004. Fig.1 shows the dependence of ϵ and $\text{tg } \delta$ on the temperature for SrTiO_3 single crystals at the frequencies 200 c.p.s., 1 and 5 kc/s for the values denoted by 1, 2, 3 and 1', 2', 3' in Card 3/6

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Producing single crystals of ...

22798
S/070/61/006/003/009/009
E073/E535

the plot. At temperatures below 77°K a sharp increase in ϵ was observed. In the range 3 to 4°C above the liquid helium temperature ϵ remains practically constant, reaching a value of about 15 000. The temperature dependence of $\text{tg } \delta$ is characterized by a very pronounced maximum (at $T \sim 13^\circ\text{K}$), the position of which is practically independent of frequency. In the temperature range 48 to 98°K a second, weak maximum was observed for $\text{tg } \delta$, which shifts towards higher temperatures with increasing frequency. Investigation of the dielectric hysteresis was at 293, 77, 4.2 °K. No hysteresis loops were detected at room temperature and liquid nitrogen temperature. The maximum potential of the electric field in these cases did not exceed 30 kV/cm. The results obtained at liquid helium temperature are plotted in Fig.2 (graph 1 - $E = 1$ kV/cm, graph 2 - $E = 3$ kV/cm, graph 3 - $E = 5$ kV/cm). They show that, at this temperature, the hysteresis loop is very narrow without a pronounced saturation. Due to breakdown of the investigated specimens, the authors were unable to observe hysteresis loops at higher field strengths. Work is proceeding on elucidating the influence of the purity of single crystals on their dielectric

Card 4/6

22798

Producing single crystals of ...

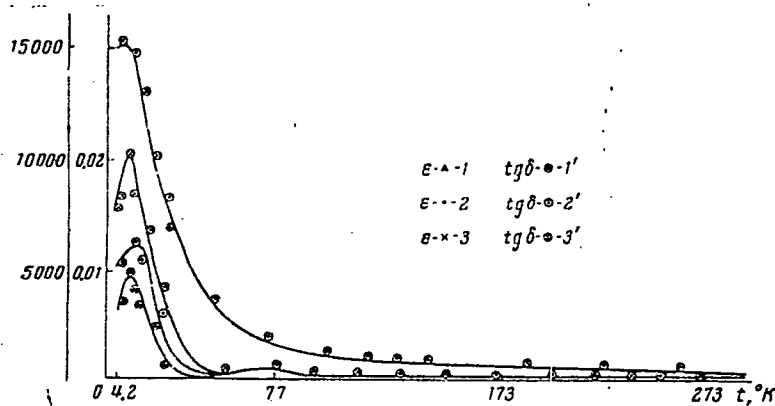
S/070/61/006/003/009/009
E073/E535

properties and the dependence of the latter on various small additions. There are 2 figures and 1 Soviet reference.

ASSOCIATION: Fizicheskiy institut imeni P. N. Lebedeva
(Physics Institute imeni P. N. Lebedev)

SUBMITTED: July 25, 1960

Fig. 1



Card 5/6

0

REZNIK, I.; MAKSIMOVA, I.

Foreign methods for copying and duplicating documents. Biul.
nauch.inform.; trud i zar.plata no.2:67-74 '59.
(MIRA 12:5)

(Copying processes)

SERBINOVA, N.I.; Prinimali uchastiye: LESHCHINSKAYA, I.B., diplomant;
BUX, T.T., diplomant; MAKSIMOVA, I.B., laborant.

Conditions of fermentation and the selection of pure yeast cultures
for semisweet table wines. Trudy VNIIViV "Magarach" 9:83-95 '60.
(MIRA 13:11)

(Wine and wine making)

(Yeast)

KOSHLIYAKOV, N.S.; MAKSIMOVA, I.G.

An ordinary Laplace's equation of the fourth order [with summary
in English]. Inzh.-fiz.zhur. 1 no.8:73-83 Ag '58. (MIRA 11:8)
(Harmonic functions)

BUR'YAN, N.I.; VODOREZ, G.D.; MAKSIMOVA, I.G.

Group B vitamin content in red grape wine. Trudy VNIIV1V
"Magarach" 13:80-83 '64. (MIRA 17:12)

KAPLAN, M. A.; MAKSIMOVA, I. I.

"Printsipy i metody ekspeditsionno-sobiratel'skoy raboty (opyt Gosudarstvennogo Muzeya etnografii narodov SSSR)."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

MAKIMOVA, I. L.

"Changes in the Numbers of Thrombocytes and in the Thrombocyte Formula in Various Infectious Diseases," Tezisy Dokladov 9-y Nauchnoy-Sessii Kishinevskogo Gosudarstvennogo Meditsinskogo Instituta (Theses of Reports Presented at the 9th Scientific Session of the Kishinev State Medical Institute), Kishinev, 1952, p. 54.

USSR / Pharmacology and Toxicology--Medicinal Plants V-5

Abs Jour: Ref Zhur-Biol., No 23, 1958, 107339

Author : Maksimova, I. L.

Inst : Kishinev Medical Institute

Title : The Effect of Walnut Seeds upon the Secretion and
Acidity of the Gastric Juice

Orig Pub: Tr. Kishinevsk. med. in-ta, 1956, 5, 325-328

Abstract: The effect of seeds of the walnut on the acidity
(A) of the gastric content (GC) was studied on 106
patients, out of whom an increased A of GC was
present in 57, low in 13, and normal in 36. The
seeds were introduced perorally in a crushed form
for 10 days, 30 minutes before meals, in a dose of
15 to 50 grams. It was established that in hyper-

Card 1/2

MAKSIMOVA, I. L. Cand Med Sci -- (diss) "~~The~~ Effect of Walnut
Kernels^p on the Secretion and Acidity of ~~the~~ Gastric Juice."
Kishinev, 1957. 6 pp 20 cm. (Min of Health, Moldavian SSR,
Kishinev State Medical Inst), 200 copies (KL, D6-57, 101)

- 19 -

KOROVINA, T.V.; MAKSIMOVA, I.L.; YAKOVLEVA, I.A.

Clinical aspects of dermatomyositis. Zdravookhranenie 2 no.5:40-45 S-0 '59. (MIRA 13:4)

1. Iz kafedr gosptal'noy terapii (zaveduyushchiy - prof. M.A. Polyukov) i patologicheskoy anatomii (zaveduyushchiy - kand. med. nauk V.Kh. Anestiadi) Kishinevskogo meditsinskogo instituta.
(MUSCLES--DISEASES)

MAKSIMOVA, I.L.

Blood cholesterol level in the compound treatment of hypertension
and atherosclerosis. Zdravookhranenie 3 no. 5:30-33 S-O '60.
(MIRA 13:10)

1. Iz kafedry gosptial'noy terapii (zav. - prof. M.A. Polyukhov)
Kishinevskogo meditsinskogo instituta.
(CHOLESTEROL) (HYPERTENSION) (ARTERIOSCLEROSIS)

MAKSIMOVA, I.L.

Hypercholesteremia in elderly persons. Trudy Kish.gcs.med.inst.
12:121-124 '60. (MIRA 16:4)

1. Kafedra gospi'tal'noy terapii Kishinevskogo gosudarstvennogo
meditsinskogo instituta.
(GERIATRICS) (BLOOD---DISEASES) (CHOLESTEROL)

MAKSIMOVA, I.L.

Concerning the treatment of cholesteremia. Trudy Kish.gos.med.
inst. 13:123-124 '60. (MIRA 16:2)

1. Kafedra gosital'noy terapii Kishinevskogo gosudarstvennogo
meditsinskogo instituta.
(CHOLESTEROL) (PHARMACOLOGY)

MAKSIMOVA, I.L.; SMIRNOVA, E., red.

[Experience in the use of Moldavian walnuts in gastric diseases] Opyt primeneniia moldavskikh gretskikh orekhov pri zabolevaniakh zheludka. Kishinev, Kartia moldoveniaske, 1964. 97 p. (MIRA 17:10)

5.1310

77640

SOV/80-33-2-15/52

AUTHORS: Volova, Ye. D., Maksimova, I. N., Mashovets, V. P., and Fomichev, V. G.

TITLE: Electrolytic Preparation of Thallium Amalgam for Low-Temperature Thermometers

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 349-354 (USSR)

ABSTRACT: Electrolytic preparation of thallium amalgam was studied to determine optimum conditions for the process. The materials used were: purified and vacuum-distilled mercury (and brand P-2 mercury); thallium sulfate of composition: Tl_2SO_4 , 99.9% Fe, 0.001%; Cu, 0.005%; water insoluble impurities 0.01%, impurities precipitable with NH_2OH 0.01%, those not precipitable with $(NH_4)_2S$ 0.01%; and metallic thallium (for preparation of amalgam by direct

Card 1/8

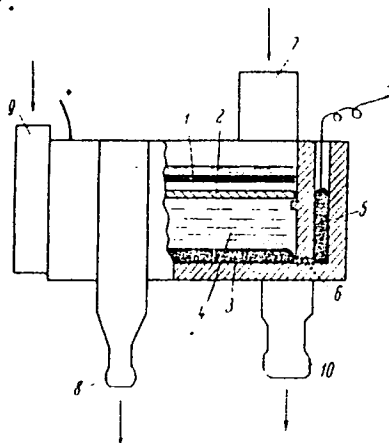
Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers

77640

SOV/80-33-2-15/52

dissolution of Tl in mercury) containing Tl, 99.8%; Zn, 0.004%; Cd, 0.02%; Cu, 0.006%; Pb, 0.005%; and Fe, 0.001%. Figure 1. shows the cross section of the electrolyzer.

Fig. 1



Card 2/8

See Card 3/8 for caption.

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers

77640
SOV/80-33-2-15/52

Caption to Fig. 1.

Fig. 1. Cross section of the electrolyzer; (1) anode; (2) pressed fiberglass membrane; (3) flowing mercury cathode; (4) the electrolyte; (5) outlet from cathode; (6) platinum contact; (7) inlet for the electrolyte; (8) electrolyte drain; (9) inlet for the mercury; (10) amalgam drain.

Content of thallium in amalgam was determined by potentiometric titration with 0.01 N KBrO_3 of 0.2-0.5 g amalgam samples dissolved in dilute sulfuric acid. Results obtained by the use of a platinum wire anode (with a surface area of 2.5 cm^2) were compared with the results with a lead anode (a perforated horizontal plate of $\sim 30 \text{ cm}^2$ surface). Cathodes with an area of 5.7 and 30 cm^2 in the first case, and 30 cm^2 in the second were used. In the

Card 3/8

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers

77040
SOV/80-33-2-15/52

case of platinum anode 95-100% thallium yield based on current were reached at all investigated temperatures (20-45°), cathodic current densities (12-50 ma/cm²), acidities of initial solution (0.001 to 1.33 g-equiv/l) and flowrates, w , of the solution from w_{theoret} (in l/min) to 5 w_{theoret} at the optimum composition of the electrolyte (high Tl⁺ concentration and low acidity). w_{theoret} was calculated from Tl concentration and current, taking complete Tl extraction and yield based on current as 100%. Figure 1 shows that the degree of thallium utilization (in amalgam) is inversely proportional to the flowrate of the solution.

Card 4/8

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers

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SOV/80-33-2-15/52

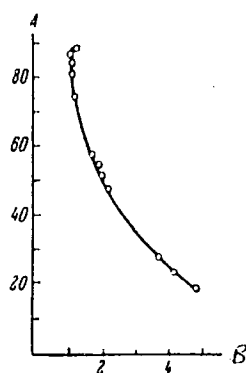


Fig. 2. Degree of thallium utilization (in %): (A) as a function of solution flowrate; (B) $--w_{\text{actual}}/w_{\text{theoretical}}$ -- in electrolysis with a platinum anode.

Card 5/8

Electrolytic Preparation . Thallium
Amalgam for Low-Temperature Thermometers

77640
SOV/80-33-2-15/52

The output is lowered with decreasing thallium concentration (by lowering concentration of Tl from 40.5 to 8.5 g/l, the yield based on current dropped from 98.0 to 64.5% and degree of thallium utilization from 86.0 to 50.2%) and with increasing acidity (at $\angle H \angle$ 1.33 g-equiv/l compared to the optimum ≤ 0.01 g-equiv/l the yield dropped to 70.6%). Experiments with a lead anode show that the process gives lower outputs than with platinum anode, is accompanied by thallium oxidation to Tl_2O_3 and is more sensitive to changes in temperature (rise in temperature increases thallium yield and utilization and decreases oxidation), current density (increase of current density raises Tl yield and utilization somewhat with a maximum at 50 ma /cm²; a subsequent decrease in yield is probably caused by increasing evolution of hydrogen at the cathode) and flowrate (increasing flowrate somewhat decreases oxidation, increases Tl yield and decreases degree of utilization). Unfavorable results

Card 6/8

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers

77640
SOV/80-33-2-15/52

obtained by the use of lead anode are caused by its large surface area and high overvoltage. Experiments on electrolysis with a smaller lead anode resulted in overheating of electrolyte and decomposition of anode. On the basis of experimental results the authors recommend the use of a platinum anode with a small surface area. Optimum conditions: the electrolyte containing 40.5 g/l of Tl^+ and ≤ 0.01 g-equiv/l of free H_2SO_4 ; temperature 20-40°; cathodic current density 35-50 ma/cm²; and the flowrate of the solution 1.02-1.05 w_{theoret}. In electrolysis on the lead anode temperature of 60-65° and current density of 50-70 ma/cm² should be used. Preparation of thallium amalgam by dissolving thallium in mercury (at room temperature, under glycerin or water) is a simpler process than electrolysis, but the amalgam prepared by the latter process is supposed to be of greater purity. The amalgams prepared by both processes have been submitted for tests in low-temperature thermometers to ascertain the advantages of the electrolysis amalgam.

Card 7/ 8

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature

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SOV/80-33-2-15/52

There are 5 figures; 1 table; and 13 references ,
3 Soviet, 5 German, 1 U.K., 4 U.S. Abstracter's
Note: There are 12 references listed in the article
but one of them was broken down into two. The
U. K. and U.S. references are: D. Mac-Intosh, F. M.
Johnson, J. Am. Chem. Soc., 34, 941 (1910); J.
Enrenreich, Instruments & Automation, 27, 1070
(1954); F. W. Richards, C. Smith, J. Am. Chem. Soc.,
44, 524 (1922), 45, 1455 (1923); F. Singch, J. Indian.
Chem. Soc., 13, 717 (1936); F. W. Richards, F. Daniels,
J. Am. Chem. Soc., 41, 1732 (1919).

ASSOCIATION: Leningrad Lensovet Technological Institute
(Leningradskiy tekhnologicheskii institut imeni
Lensoveta)

SUBMITTED: February 25, 1959

Card 8/8

MASHOVETS, V.P.; LOKSHINA, A.S.; MAKSIMOVA, I.N.

Anodic processes on platinum and lead anodes during the
electrolytic production of thallium amalgam. Trudy LTI
no.61:104-109 '60. (MIRA 15:5)
(Thallium) (Amalgams) (Electrochemistry)

MAKSIMOVA, I.N.

Determination of affinity between elements and electrons. Zhur.
struk.khim. 2 no.4:462-468 J1-Ag :61. (MIRA 14:9)

1. Leningradskoy tekhnologicheskoy institut imeni Lensovet.
(Chemical elements) (Electrons)

MAKSIMOVA, I.N.

Ionization potentials and the position of elements in the
Mendeleev system. Zhur.strukt.khim. 3 no.1:70-79 Ja-F '62.
(MIRA 15:3)

1. Leningradskiy tekhnologicheskii institut imeni Lensoвета.
(Ionization) (Periodic law)

MAKSIMOVA, D.N.; MASHOVETS, V.F.; VOLKOVA, A.V. .

Cathodic processes during electrolysis of mixed solutions
of univalent and trivalent thallium sulfates. Zhur.prikl.khim.
36 no.3:565-571 My '63. (MIRA 16:5)

1. Leningradskiy tekhnologicheskii institut imeni Lensovetu.
(Thallium sulfate) (Electrolysis)

MAKSIMOVA, I.N.; YUSHKEVICH, V.F.

Electric conductivity of sodium metaborate solutions at high
temperatures. Zhur.fiz.khim. 37 no.8:1859-1863 Ag '63.
(MIRA 16:9)

1. Leningradskiy tekhnologicheskii institut im. Lensoвета.
(Sodium borates--Electric properties)

MAKSIMOVA, I.N.

Temperature dependence of the viscosity of some aqueous solutions
and organic liquids. Zhur. fiz. khim. 38 no.1:197-200 Ja'64.

(MIRA 17:2)

1. Leningradskiy tekhnologicheskii institut imeni Lencveta.

MAKSIMOVA, I.N.

Determination of the density of aqueous solutions. Zhur. fiz. khim.
39 no.3:551-554 Mr '65.
(MIRA 18:7)

1. Leningradskiy tekhnologicheskii institut.

MAKSIMOVA, I.; MASHOVETS, V.; YUSHKEVICH, V.

Conductance of sodium aluminate solutions at high temperatures,
Zhur.prikl.khim. 38 no.6:1400-1403 Dec '65,

(MIRA 18:10)

MAKSIMOVA, I.N.; YUSHKEVICH, V.F.

Electric conductance of NaOH solutions at high temperatures.
Zhur. fiz. khim. 37 no.4:903-907 Ap '63. (MIRA 17:7)

1. Leningradskiy tekhnolog'icheskiy institut.

MAKSIMOVA, I.N.

Relation between electric conductivity and viscosity of
solutions. Zhur. fiz. khim. 38 no.2:271-279 F '64.

(MIRA 17:8)

1. Tekhnologicheskii institut imeni Lensovet, Leningrad.

Organic Chemistry - 10

Synthesis of halo ethers from unsaturated hydrocarbons from cracking. A. K. Seleznev and I. S. Maksimova (Grozny Petr. Inst.). *Zhur. Priklad. Khim.* (J. Applied Chem.) 25, 78-83 (1952).—Passage of 25 l. Cl into a suspension of 8.2 g. KOH in EtOH and an unstated amt. of con. butylene (C_4H_8 , 7.7, C_4H_8 , 7.9, iso- C_4H_8 , 10.8, n- C_4H_8 , 49.4%) at -10° gave a 3:1 mixt. of halo ethers and dichlorides, resp. The main products were: MeCH(OEt)-CHClMe, b. $131-3^\circ$, d_4^{20} 1.016, n_D^{20} 1.420, and EtCH(OEt)-CHCl, b. $140-2^\circ$, d_4^{20} 1.022, n_D^{20} 1.430. Neither was obtained in completely pure state. With iso-PrOH as the diluent, there was formed an analogous mixt. of chlorobutyl ethers and dichlorides; from this were isolated moderately pure isopropylchlorobutane fractions, apparently, the 2,3-isomer, b. $125-36^\circ$, d_4^{20} 1.0022, n_D^{20} 1.429, and the 1,2-isomer, b. $136-42^\circ$, d_4^{20} 0.9721, n_D^{20} 1.427. Com. amylene, b. $31-40^\circ$, iodine no. 68.4, contg. 19% unsaturates, treated as above in EtOH at 0° gave mixed chloroethoxypentanes, b. $121-55^\circ$; no individuals were isolated. A similar reaction run in BuOH gave mixed chloropentenes, b. $100-20^\circ$, and mixed di-Cl deriva., b. $120-50^\circ$, as well as small amts. of chlorobutoxypentanes, b. $95-100^\circ$, d_4^{20} 0.9377-0.9385, n_D^{20} 1.4385. Amylenes in PhCH₂CH₂OH gave a little chloro(phenethoxy)pentane, b. $128-36^\circ$.

(I. M. Kusolapoff

ISAGULYANTS, V.I.; MAKSIMOVA, I.S.

Reaction of the dehydrochlorination of β -chloro ethers. Zhur.
prikl. khim. 34 no.1:208-211 Ja '61. (MIRA 14:1)
(Ethers) (Hydrochloric acid)

MAKSIMOVA, I. S.

USSR/Chemistry - Petroleum

Jan 52

"Synthesis of Halogen - Substituted Ethers From Unsaturated Cracking Hydrocarbons," A. K. Seleznev, I. S. Maksimova, Lab of Org Chem and Petroleum Chem, Groznyy Order of the Red Banner Petroleum Inst

"Zhur Prik Khim" Vol XXVI, No 1, pp 78-83

Synthesized Et and iso-Pr ethers of α - and β -butene chlorohydrins from butane-butene cracking fraction. These products may elicit interest as valuable solvents.

206743

Maksimova, I. S.

Preparation of some β -halo ethers from olefins. V. I. Izrael'skiy and I. S. Maksimova. Doklady Akad. Nauk SSSR, 1966, 166, 1000. (Russian; Abstract in summary). — 2-Pentene and 1-pentene mixt. (830 g.), 160 ml. of BuOH and 130 g. of KOH were mixed together, cooled to -10° , stirred and 42.0 l. of Cl₂ (at 4.5 l./hr.) were introduced. After completion of the reaction, water was added, the upper layer washed until neutral and dried over CaCl₂, the unreacted pentenes distd. off, the dichlorides removed by treatment with alc. 30% KOH, and the reaction mixt. distd. yielding a product (I) b. between 180–193°. I treated with alc. KOH and redistd. gave Et(RO)CHCHClMe (II, R = Bu), b. 191–197°, n_D^{20} 1.4309, n_D^{25} 1.4309. II (R = Ph), b. 122–4°, d_4^{25} 1.0463, n_D^{25} 1.5040, and II (R = cyclohexyl), b. 137°, were similarly prepd.

V. S. Mikhajlov

PM

MAKSIMOVA, I.S.

Min Higher Education USSR. Grozny Order of Labor Red Banner Petroleum
Inst.

Maksimova, I.S.: "Investigation of the synthesis and transformation of
betachloro ethers obtained from olefins in cracking petroleum." Min Higher
Education USSR. Grozny Order of Labor Red Banner Petroleum Inst. Grozny, 1956
(Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 20, 1956

MAKSIMOVA, I. S.

E-2

USSR/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19056

Author : Isagulyantz V. I., Maksimova I.S.

Inst : MOSCOW PETROLEUM INSTITUTE

Title : New Method for the Preparation of α -substituted vinyl Ethers and Ketones. *in I. M. GUBKIN*

Orig Pub: Dokl. AN ArmSSR, 1956, 22, No 5, 203-208

Abstract: A method is developed for the transformation of β -chloroethers (I) in α -substituted vinyl ethers by heating I with an alcoholic alkali at various temperatures and pressures. 10 g. of 2-methoxy-1-chloropentane (obtained from the pentaneamylene fraction of the thermic cracking and chloramine in CH_3OH at -8° , yield 84%, b.p. $14-143^\circ$, n_{D}^{20} 1.4290, and d_4^{20} 0.9720) and heated in an ampoule (140° , 5 hours) with 4.5 g. KOH in 10 cc $\text{C}_2\text{H}_5\text{OH}$. After treatment with water and fractionation is isolated $\text{CH}_2=\text{C}(\text{C}_3\text{H}_7)\text{OCH}_3$ (II), yield 77%, b.p. $85-86^\circ$, n_{D}^{20}

Card : 1/2

Card : 2/2

MARKSIMOVA, E. S.

✓ Synthesis and conversion of β -chloro ethers from cracking olefins. I. Activity of β -chloro ethers and a new method of preparing α -substituted vinyl ethers and olefin ketones. V. I. Isagulyants and I. S. Makal'mova. *Zhur. Prikl. Khim.* 39, 978-81 (1967). Attempts to cleave HCl from 2-butoxy-1-chloropentane (I) by boiling with alc. KOH and PhMe solns. of KOH failed. On the other hand, β -methoxy-1-chloropentane (II) heated in sealed tubes with alc. KOH at 80-140° formed $\text{MeCH}_2\text{CH}_2\text{C(OMe)CH}_2\text{CH}_3$ (III); conversion of the original ether increased from 25 to 77% as the temp. increased. II heated with alc. KOH in an autoclave for 8 hrs. at 200-220° under 10-20 atm. pressure gave 90-96.7% III, b. 85-86°, n_D^{20} 1.4020, d_4^{20} 0.8048, Br no. 166.5. II was prepd. by the sulfamide method (cf. Sklyarov, *CA* 34, 4056) from a narrow fraction (36-42°) of cum. styrene from which the isomylenes had been removed by digestion with HCl (d. 1.10). I. Bencowitz

4E3d
4E4f

4E2C (f)
2 May

PM

MAKSI MOVA, I. S.

AUTHOR

ISAGULYANTS, V.I., MAKSIMOVA, I.S.,
member of the Armenian Academy of Science.

20-1-28/64

TITLE

The Transformation of β -chlorine ethers in the presence of
metals. (Prevrashcheniye β -chlorefirov v prisutstvi metallov.-
Russian)

PERIODICAL

Doklady Akademii Nauk SSSR 1957, Vol 114, Nr 1, pp 102-105
(U.S.S.R.)

ABSTRACT

In the course of previously published reports the new reaction
of β -chlorine ethers and their ability of separating hydrochloric
acid in certain circumstances has already been described. The
development of investigations within the field of transformations
of β -chlorine ethers which were carried out by the above authors
referred to transformations in the presence of such metals as
sodium, aluminium, copper, and magnesium, on which occasion mainly
methyl ether of chlorhydrine was used. Experimentally it was
established that the presence of chloride of copper causes
polymerization of vinyl ether, but the degree of polymerization
is low. Experiments with aluminum dust were carried out by the
autoclave method. Temperature fluctuated between 180 and 280°.
Experiments with magnesium were carried out in the temperature
interval of 160 - 280°. If the influence exercised by copper,

CARD 1/2

20-1-28/64

The Transformation of β -chlorine ethers in the presence of metals.

aluminium, and magnium upon chlorine ethers is compared, it is found that the activity mechanism of these metals remains unchanged: all of them at first promote catalytic separation of HCl from ether, and afterwards the separated hydrochloric acid together with the free metals causes the formation of chlorides. These chlorides intensify the reaction of the separation of hydrochloric acid and catalyze the renewed reaction of hydrolysis and polymerization of the alpha-derivative of vinyl ether formed.

(With 5 tables and some chemical formulae)

ASSOCIATION: not given.

PRESENTED BY: -

SUBMITTED/ -

AVAILABLE: Library of Congress.

CARD 2/2

ISAGULYANTS, V.I.; MAKSIMOVA, I.S.

Conversions of β -chloroethers in the presence of metals. Zhur.
prikl. khim. 31 no.10:1578-1585 O '58. (MIRA 12:1)
(Ethers) (Metals)

S/081/61/000/020/071/089
B126/B147

AUTHORS: Isagulyants, V. I., Maksimova, I. S.

TITLE: Synthesis of α -substituted vinyl esters, ketones, and other chemical compounds of β -chloro esters obtained from cracked pentane amylene fraction

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 318, abstract 20L16 ([Tr.] Groznensk. neft. in-t, Sb. 23, 1960, 151-162)

TEXT: A new method for the synthesis of vinyl esters from β -chloro esters obtained from cracked fractions was developed, and the effects of temperature, alkali concentration, and alcohol nature on the process were studied. The substituted vinyl esters obtained are used as monomers and also for the synthesis of carbonyl compounds. [Abstracter's note: Complete translation.]

Card 1/1

S/081/61/000/021/061/094
B138/B101

AUTHORS: Isagulyants, V. I., Maksimova, I. G.
TITLE: Alkylation of phenol by β chloro ethers, and by dichlorides and dibromides separated from the pentane-amylene cracking fractions
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 320, abstract, 21L37 (Tr. Groznensk. neft. in-t. sb. 24, 1960, 38-44)

TEXT: As a result of the alkylation of phenol by dichlorides and dibromides separated from chlorinated or bromized pentane-amylene fractions, the corresponding alkyl phenols are obtained. It is suggested that they could be used as the raw materials for the production of alcoholsoluble acid-resistant varnishes. Two new alkyl phenols have been produced by the alkylation of phenol with β chloro ethers: $\text{CH}_3\text{CH}_2\text{CH}(\text{OC}_4\text{H}_9)\text{CH}(\text{CH}_3)\text{C}_6\text{H}_4\text{OH}$, BP 180 to 190°C/3 - 4 mm Hg, and $\text{CH}_3\text{CH}_2\text{CH}(\text{OCH}_3)\text{CH}(\text{CH}_3)\text{C}_6\text{H}_4\text{OH}$, BP 160 - 180°C/4 - 5 mm Hg. [Abstracter's note: Complete translation.]

Card 1/1

2234
S/080/61/034/001/016/020
A057/A129

5.3606

AUTHORS: Isagulyants, V.I., Maksimova, I.S.

TITLE: Reaction of Dehydrochlorination of β -chloro-ethers

PERIODICAL: Zhurnal Prikladnoy Khimii, 1961, Vol. 34, No. 1, pp. 208-211

TEXT: In the present work the influence of the nature of the alkoxy group in β -chloro-ethers on dehydrochlorination was investigated. It was observed that an increase in the number of C atoms in the carbon radical promotes dehydrochlorination. The present experiments were carried out with: 2-chloro-3-propoxy-pentane and 2-chloro-3-butoxy-pentane. Two new substituted vinyl ethers were obtained: 3-propoxy-pentene-2 and 3-butoxy-pentene-2. In previous papers the present authors described synthesis of substituted vinyl ethers by dehydrochlorination of β -chloro ethers [Ref.1: DAN Arm. SSR, 22,5, 203 (1956), and Ref.2: ZhPKh, 30,775 (1957)]. The latter were obtained from cracking olefines. Vinyl ethers are chemically highly active and are used in the preparation of polymers. Developing the research program the present authors investigated [Ref.3: Tr.mezhvuzovskoy nauchno-tekhn.konf. po probleme-
Card 1/6

22531

S/080/61/034/001/016/020

A057/A129

Reaction of Dehydrochlorination of β -chloro-ethers

mam ispol'zovaniya nefiti i gaza dlya khim.sinteza i novykh vidov motornykh topliv (Proceedings of the inter-university scientific technical conference on problems of the use of petroleum and gas for chemical synthesis and new types of motor fuels), 7,28,157-162 (1960)] the effect of alkali concentration and nature of alcohol (used as solvent) on dehydrochlorination of β -chloro-ethers. Experiments with methyl chloro-ether demonstrated that the yield of vinyl ethers depends on alkali concentration. Optimum ratio is methyl chloro-ether : alcohol = 1 : 3. Solutions of KOH in methyl-, ethyl-, butyl-, and amyl-alcohol were investigated and it was observed that the main reaction product with KOH solutions in methanol or ethanol was α -propyl-methyl-vinyl ether. While using butanol-, or amyl-alcohol-solutions of KOH the yield of vinyl ether decreased and chlorine in the β -chloro-ether was substituted partly by the alkoxy group of the used alcohol. The β -chloro-ethers used in the present investigations were obtained from a cracked pentane-amylene fraction by a previously described method [Ref.4: A.K. Seleznev, and I.S. Maksimova, ZhPKh, 25,78 (1952); Ref.5: V.I. Izagulyants, I.S. Maksimova, DAN Arm. SSR, 20,120 (1955)]. The constants of the ethers are given in Table 1. The experiments were carried out in an autoclave by heating the mixture (β -chloro-ether : alcohol = 1 : 3) at 10-15 atm during 1-2 hrs (see Tab.2,3). [Abstracter's note: no data on temperature are given, but previous papers are

Card 2/6

Reaction of Dehydrochlorination of β -chloro-ethers

4434
S/080/61/034/001/016/020
A057/A129

referred to]. Dehydrochlorination conditions for the methyl ether have been more rigorous, viz., 8 hrs heating at 10-20 atm (Ref.2). The constants of 3-propoxy-pentene-2 obtained are: boiling point 125-126°C, n_D^{20} 1.4080, d_{20}^{20} 0.7841, MR = 40.313 (calculated), 40.30 (obtained) [Abstracters note: the latter is a misprint and should read 4.30], bromine number 125 (calculated), 122.4 (obtained), empirical formula $C_8H_{16}O$; constants for 3-butoxy-pentene-2 are: boiling point 146-147°C, n_D^{20} 1.4145, d_{20}^{20} 0.7926, MR 44.93 (calculated), 44.81 (obtained), bromine number 112.6 (calculated), 111.2 (obtained), empirical formula $C_9H_{18}O$. There are 5 tables and 5 Soviet references.

SUBMITTED: June 9, 1960

Card 3/6

MAKSIMOVA, I.V.

Effect of oxygen inspiration on cholesterinemia in atherosclerosis and hypertension. Trudy LSGMI 40:72-78 '58.

(MIRA 12:8)

1. Fakul'tetskaya terapevticheskaya klinika Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. klinikoy - prof.A.A.Kedrov).

(OXYGEN, effects,

on blood cholesterol in hypertension & arteriosclerosis (Rus))

(CHOLESTEROL, in blood,

eff. of oxygen in hypertension & arteriosclerosis (Rus))

(HYPERTENSION, blood in,

cholesterol, eff. of oxygen (Rus))

(ARTERIOSCLEROSIS, blood in,

same)

MAKSIMOVA, I.V.

Change in the blood cholesterol level in atherosclerosis and hypertension under the influence of oxygen therapy. Sov.med. 23 no.1:50-52 Ja '59. (MIRA 12:2)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zav. - prof. A.A. Kedrov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

(ARTERIOSCLEROSIS, blood in
cholesterol, eff. of oxygen inhalation ther. (Rus))
(HYPERTENSION, blood in
same)
(CHOLESTEROL, in blood
in arteriosclerosis & hypertension, eff. of oxygen
inhalation ther. (Rus))
(OXYGEN, ther. use
inhalation in arteriosclerosis & hypertension, eff.
on blood cholesterol (Rus))

MAKSIMOVA, I.V.

Effect of oxygen inhalation on the level of cholesterol, proteins,
and lipoproteins in the blood serum in patients with hypertension
and arteriosclerosis. Trudy LSGNI 48:121-133 '59. (MIRA 14:2)
(CHOLESTEROL) (BLOOD PROTEINS) (HYPERTENSION)
(ARTERIOSCLEROSIS) (OXYGEN--PHYSIOLOGICAL EFFECT)

MAKSIMOVA, I.V.

Effect of oxygen inhalation on the lipid metabolism of rabbits
during starvation. Trudy LSGNI 48:134-139 '59. (MIRA 14:2)
(LIPID METABOLISM) (OXYGEN—PHYSIOLOGICAL EFFECT)
(STARVATION)

MAKSIMOVA, I. V., Cand Med Sci -- (diss) "Influence of oxygen therapy on lipoids, lipoprotein and protein fractions of the blood in atherosclerotic and hypertonic patients." Leningrad, 1960. 14 pp; (Ministry of Public Health RSFSR, Leningrad Medical Inst of Sanitation and Hygiene); 300 copies; price not given; (KL, 29-60, 127)

ZHDANNIKOVA, Ye.N.; PIMENOVA, M.N.; MAKSIMOVA, I.V.; BALITSKAYA, R.M.

Preservation of algal collections; lasting preservation of
protococcal algae on agar slants and in sand at 3-4° C. Vest.
Mosk.un.Ser.6: Biol., pochv. 19 no.1:45-49 Ja-F '64.

(MIRA 17:4)

1. Kafedra mikrobiologii Moskovskogo universiteta.

MAKSIMOVA, I.V.; LASHCHKINA, K.D.

Causes of death of bacteria in growing algal cultures. Report No.1
Characteristics of the growth of *Bacillus cereus* and *Pseudomonas*
ovalis in developing cultures of green protococcal algae. Vest.
Mosk. un. Ser. 6; Biol., pochv. 19 no.3:40-47 My-Je '64.
(MIRA 17:12)

1. Kafedra mikrobiologii Moskovskogo universiteta.

ACCESSION NR: AP4031822

S/0220/64/033/002/0221/0223

AUTHOR: Shaposhnikov, V. N.; Pimenova, M. N.; Maksimova, I. V.;
Zhdannikova, Ye. N.; Ramenskaya, A. A.

TITLE: Seasonal periodicity in the growth of green algae under
laboratory conditions

SOURCE: Mikrobiologiya, v. 33, no. 2, 1964, 221-223

TOPIC TAGS: algae cultivation, Chlorella vulgaris, Chlorella
ellipsoidea, Scenedesmus obliquus, Scenedesmus quadricauda,
Ankistrodesmus falcatus

ABSTRACT: A two-year study was made of the growth of algae under
laboratory conditions, that is, constant composition of medium, tem-
perature, and illumination. The investigations were conducted
with pure cultures of Chlorella vulgaris (strain 87), Chlorella
ellipsoidea, Scenedesmus obliquus, Scenedesmus quadricauda, and
Ankistrodesmus falcatus. The nutrient medium for Chlorella con-
sisted of KNO_3 , 1.82 g/l; K_2HPO_4 , 0.42 g/l; $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$, 0.96 g/l;

Card 1/2

ACCESSION NR: AP4031822

FeSO₄, 0.005 g/l; CaCl₂, 0.011; EDTA, 0.1 g/l, and Arnon micro-element solutions, A₄ (1 ml) and B₇ (1 ml). Scenedesmus and Ankistrodesmus algae were grown in a nutrient medium consisting of Ca(NO₃)₂·4H₂O, 2.0 g/l; K₂HPO₄, 0.36 mg/l; MgSO₄·7H₂O, 0.2 g/l; FeSO₄, 0.005 g/l; EDTA, 0.1 g/l, and Arnon microelement solutions, A₄ (1 ml) and B₇ (1 ml). The initial pH of the medium ranged from 5.3 to 5.6. Air containing 2% CO₂ was bubbled through the suspension continuously (that is, 24 hours per day). TBS-30 lamps with a light intensity of 2000 lux at 27—28C were used for illumination. The experiments which were conducted through 1961 and 1962 produced quite similar data. No seasonal periodicity was observed in the development of algae grown under laboratory conditions. The number of cells was determined monthly in the 7- and 10-day yields with a difference not exceeding 20—30%. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 31Jan63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: LS

NO REF SOV: 010

OTHER: 001

Card 2/2

MAKSIMOVA, I.V.; TOROPOVA, Ye.G.; PIMENOVA, M.N.

Release of organic substances by green algae, grown on mineral media. Mikrobiologiya 34 no.3:483-490 My-Je '65.

(MIRA 18:11)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.

MAKSHVA, I. V. Cand Biol Sci -- (diss) "The effect of light of various intensities
and spectral composition ^{upon certain features} ~~on some regularities~~ of the metabolism of purple bacteria"
Mos, 1957. 10 pp 20 cm. (Mos Order of Lenin and Order of ^{LABOR} ~~of the Patriotic War~~)
State Univ im N. V. Gromosov), 100 copies
(H. 29-57, 23)

20

MAKSIMOVA, I.V. (Moskva).

~~Pigment system of purple bacteria and the role of bacterial pigments~~
in photosynthesis. Trudy Inst. okean. 23:14-27 '57. (MIRA 11:3)
(Bacteria, Chromogenic) (Photosynthesis)

F-1

USSR/Microbiology - General Microbiology

Abs Jour : Ref Zhur - Biol., No 3, 1957, 9781

Author : Maksimova, I.V.

Inst :

Title : Effect of Light Intensity on Some Properties of Metabolism of Purple Bacteria.

Orig Pub : Dokl. AN SSSR, 1957, 112, No 3, 545-548

Abstract : Rhodospseudomonas palustris on a mineral medium with H_2S increases only at light intensity above 7 thousand $erg/cm^2/second$, while on media with organic compounds bacteria speedily begin development at a light intensity of 2-3 thousand $erg/cm^2/second$, and at a light intensity above 12 thousand $erg/cm^2/second$ an "illumination inhibition" occurs; this phenomenon is not observed when bacteria are grown on mineral media. As the light intensity increases the consumption of organic substances (acetic, propionic acids) is decreased per unit of cell yield,

Card 1/2

Moscow State Univ.

F-1

USSR/Microbiology - General Microbiology.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9782

Author : Maksimova, I.V.

Inst : -

Title : Action of Light of Different Spectral Composition on Development and Some Metabolic Properties of Purple Bacteria.

Orig Pub : Dokl. AN SSSR, 1957, 112, No 4, 766-768

Abstract : It was established that Rhodopseudomonas palustris can grow when illuminated by a portion of the spectrum absorbed by carotenoid pigments. The cell yield at 450-550 m μ (which corresponds to carotenoid absorption) is greater than at 580-600 m μ (which corresponds to a small maximum of bacteriochlorophyll absorption). The number of cells, however, is considerably increased in the portion of the spectrum at 770-870 m μ where the maximum of the second region of bacteriochlorophyll absorption is located,

Card 1/2

MAKSIMOVA, I.V.

Photoautotrophic and photoheterotrophic development of purple
bacteria at various intensities of light. Nauch. dokl. vys. shkoly;
biol. nauki no.2:139-146 '58. (MIRA 11:10)

1. Predstavlena kafedroy mikrobiologii Moskovskogo gosudarstvennogo
universiteta imeni M.V. Lomonosova.
(BACTERIA, CHROMOGENIC) (LIGHT--PHYSIOLOGICAL EFFECT)

MAKSIMOVA, I.V.

Variations in the degree of heterotrophy in *Rhodospseudomonas palustris* as induced by light of various intensity [with summary in English]. Izv.AN SSSR Ser.biol. 23 no.2:202-210 Mr-Apr '58.
(MIRA 11:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova,
Biologo-ochennyy fakul'tet.
(LIGHT--PHYSIOLOGICAL EFFECT) (BACTERIA, AUTOTROPHIC)

COUNTRY : USSR
CATEGORY :
ABS. JOUR. : RZBiol., No. 1 1959, No. 10039
AUTHOR : Maksimova, I. V.
INST. :
TITLE : Pigment System of Purpuric Bacteria and the
Role of Bacterial Pigments in Photosynthesis
ORIG. PUB. : Uspekhi sovrem. biol., 1958, 45, No 1, 14-27
ABSTRACT : Review. Bibliography. 55 titles.

CARD: 1/1

17

39211

S/220/62/031/002/004/004
I018/I218

also 2906

AUTHOR: Pimenova, M. N., Maksimova, I. V. and Balitskaya, R. M.

TITLE: Studies on the composition of microflora accompanying algae during their mass cultivation in open reservoirs

PERIODICAL: Mikrobiologiya, v. 31, no. 2, 1962, 332-338

TEXT: Occasionally bacterial contaminants may amount to 50% of the total population of a reservoir inoculated with *Chlorella vulgaris* and *Ankistrodesmus*. The bulk of contaminant bacteria are non-sporeforming organisms belonging to the following four genera: *Pseudomonas*, *Flavobacterium*, *Acromobacter* and *Serratia*. Pseudomonads prevail. The number of sporeforming bacteria is usually small but they tend to increase under conditions unfavorable for the growth of algae. Oligonitrophils are frequently present and the presence of cellulose decomposing bacteria was also noted. Fungi are infrequently encountered, being mainly represented by organisms belonging to the genus *Trichoderma*. Nitrifying bacteria and *Azotobacter* were not detected. Bacteria found in reservoirs inoculated with *Chlorella* are more numerous than those present in reservoirs inoculated with *Ankistrodesmus*.

ASSOCIATION: Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Department of Soil Biology, Moscow State University, im. M. V. Lomonosov)

SUBMITTED: June 16, 1961

Card 1/1

41590

S/220/62/031/005/002/002
D291/D308

27 1962

4112

AUTHORS:

Maximova. I.V. and Pimenova, M.N.

TITLE:

The effect of antibiotics on the growth of
Chlorella vulgaris and associated micro-
flora in a joint culture

PERIODICAL:

Mikrobiologiya, v. 31, no. 5, 1962, 904-909

TEXT:

The effect of various concentrations of
several antibiotics on the growth of Chlorella vulgaris strain
87 and colonies of Pseudomonas ovalis, Achromobacter harthleibii
and Bacillus cereus, cultured in modified Craig-Trellis medium
in 250 ml flasks, was studied; the cultures were continuously
stirred and an air-CO₂ mixture was bubbled through. It was ob-
served that the antibiotic concent rations capable of inhibiting
the growth of Chlorella were considerably less when the cultures
were subjected to continuous stirring. With the exception of nis-
tatin, all the antibiotics tested were found to be capable of in-
hibiting bacterial growth at concentrations which did not retard

X

Card 1/3

The effect of antibiotics ...

S/220/62/031/005/002/002
D291/D308

the growth of Chlorella. These were as follows: penicillin, 500 γ /ml.; laevomycetin, 35 γ /ml.; colimycin, 5 γ /ml.; and tetracyclin, 25 γ /ml.. No adverse effect on the photosynthesis of the algae was caused by these concentrations. The possibility of adaptation of Chlorella to relatively high concentrations of antibiotics in the growth medium was explored. Some evidence of adaptation, as measured by a more gradual reduction in growth than that occurring in control cultures subjected to an identical antibiotic treatment, was noted. A detailed study was made of the effect of laevomycetin (at a concentration of 25 γ /ml.) on mixed algal-bacterial cultures. It was observed that the rates of reproduction of *B. cereus* and *Ps. ovalis* were greatly reduced, while the growth of *A. harthleibii* was completely inhibited. No adverse effects on Chlorella were noted and the activity of the antibiotic remained constant during several days of observation. There are 3 figures and 4 tables.

ASSOCIATION: Biologo-pochvennyy fakultet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova
(Faculty of Biology and Soil Science, Moscow State University im. M.V. Lomonosov)

Card 2/3

The effect of antibiotics ...

S/220/62/031/005/002/002
D291/D308

SUBMITTED: April 24, 1961

Card 3/3

MAKSHINA, I.V.; PIMENOVA, M.N.
APPROVED FOR RELEASE: 06/20/2000
Effect of antibiotics on the growth of representatives of
the unicellular green algae. Mikrobiologiya 31 no.4:646-655
Jl-Ag '62. (MIRA 18:3)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo uni-
versiteta imeni Lomonosova.

L 27405-66 ENT(1) SCTB DD SOURCE CODE: UR/0220/65/034/002/0344/0349

ACC NR: AP6017704

AUTHOR: Maksimova, I. V.; Fedenko, Ye. P.

ORG: Biology-Soil Faculty, Moscow State University im. M. V. Lomonosov (Biologo-
pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta) 34 B

TITLE: Effect of the redox potential on the development of bacteria in cultures of
algae ✓

SOURCE: AN SSSR. Mikrobiologiya, v. 34, no. 2, 1965, 344-349

TOPIC TAGS: chlorella, bacteria, plant growth, bacteriology

ABSTRACT: During the cultivation of *Chlorella vulgaris* together with the sapro-
phytic bacteria *Bacillus cereus* and *Pseudomonas ovalis* isolated from the micro-
flora accompanying the algae, the redox potential rH_2 of the medium tended to
increase. When the rH_2 of a combined culture of *C. vulgaris* and *B. cereus* in-
creased to 29 from the initial value of 27, the number of *B. cereus* decreased
abruptly. Reduction of the rH_2 to 17-23 by the addition of sodium thioglycolate
eliminated the toxic action of the algae on the bacteria: the propagation of
the bacteria was then stimulated by the growth of the algae. Similar relations
were found in connection with the combined cultivation of *C. vulgaris* and *Ps.*
ovalis: the propagation of *Ps. ovalis* was stimulated at rH_2 15-17 and sup-
pressed at rH_2 20-23 in combined cultivation with *C. vulgaris*. The authors thank Professor
I. L. Rabotnova and Professor V. N. Shaposhnikov for their valuable advice during the
discussion of the results. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 14Feb64 / ORIG REF: 003

Card 1/1 20 MDC: 576.8.095.38 2

L 27421-66 EWT(1) SCTB DD
 ACC NR: AP6017697
 SOURCE CODE: UR/0220/65/034/003/0483/0490
 AUTHOR: Maksimova, I. V.; Toropova, Ye. G.; Pimenova, M. N.
 ORG: Soil Biology Faculty, Moscow State University im. M. V. Lomonosov (Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta)
 TITLE: Release of organic matter by green algae² grown in mineral media
 SOURCE: AN SSSR. Mikrobiologiya, v. 34, no. 3, 1965, 483-490
 TOPIC TAGS: algae, chlorella, plant development, microbiology
 ABSTRACT: When Chlorella pyrenoidosa and Chlorella vulgaris are grown in liquid mineral media, a substantial amount of organic matter accumulates in the filtrate, the amount increasing with the yield of algae. The ratio of the amount of organic matter in the medium to the amount of organic matter in the cells changes in the course of algal development. During the first two days, when the yield is small, the organic matter of the filtrate is about 30% of that in the cells. This value then decreases, ranging from 5 to 10% throughout the development of the culture. Light intensity and temperature have no appreciable effect on the accumulation of organic matter in the medium. Different species of chlorella release into the medium approximately the same amount of organic matter per unit of biomass. Cell autolysis is not the main reason for the accumulation of organic matter.
 Card 1/2 UDC: 582.232-113.5

L 27421-66

ACC NR: AP6017697

matter in the medium. The increase in content of organic matter in the medium results chiefly from increase in the algal yield and is probably to be ascribed to the entry into the medium of organic matter from the maternal cell that does not take part in the formation of aplanospores and is released at the moment they leave the cell. The authors thank Professor V. N. Shaposhnikov for his attention in this work. Orig. art. has: 2 figures and 3 tables.

JPRS

SUB CODE: 06 / SUBM DATE: 14Feb64 / ORIG REF: 005 / OTH REF: 010

Card 2/2

LIVSHITS, L.S., kand.tekhn.nauk; POLYAKOVA, R.B., inzh.; MAKSIMOVA, K.I.,
inzh.

Investigation of the welded joints of steampipes from 1Kh18N12T
austentic steel. Elek. sta. 32 no.7:21-25 J1 '61. (MIRA 14:10)
(Steampipes)

KOVALENKOVA, V. K. ; MAKSIMOVA, L. A.

"Some rules governing monomycin biosynthesis."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Inst for Search for New Antibiotics, AMS USSR, Moscow.

MAKSIMOVA, L.I.; TSEYTLIN, A.G., prof., nauchnyy rukovoditel'

Basic indices of the physical development in newborn infants
in Dzerzhinsk. *Pediatrics* 4 no.7:54-56 J1'63 (MIRA 16:12)

1. Glavnyy pediater Gor'kovskogo oblastnogo otдела zdravookhrane-
niya (for Maksimova).

MAKSIMOVA, L.I.; KURNOSOVA, Ye.F., vrach

Rational utilization of the crèche. Vop. okh. mat. i det. 6 no.8:
66-69 Ag '61. (MIRA 15:1)

1. Glavnyy pediater Gor'kovskogo oblastnogo otdela zdravookhraneniya
(for Maksimova). 2. Yasli No.1 Dzerzhinska Gor'kovskoy oblasti
(for Kurnosova).

(DAY NURSERY)

MAKSIMOVA, L. I., Cand. Medic. Sci. (diss) "Hygiene of Labor in Building-Ceramics Industry," Moscow, 1961, 19 pp. (Acad. Med. Sci. USSR. Inst. of Labor Hygiene and Industrial Illnesses) 250 copies (KL Supp 12-61, 286).

MAKSIMOVA, L.I.

Hygienic evaluation of the dust factor in the construction
ceramics industry. Uch.zap.Mosk.nauch.-issl.inst.san.i gig.
no.8:71-74'61. (MIRA 16:7)

(CERAMIC INDUSTRIES---HYGIENIC ASPECTS)
(LUNGS---DUST DISEASES)

MAKSIMOVA, L.L.

System of axioms of computation of strict implication. Alg. 1
log. 3 no.3:59-68 '64 (MIRA 18:1)

128

PHASE I BOOK EXPLOITATION

SOV/6246

Soveshchaniye po tseolitam. 1st, Leningrad, 1961.

Sinteticheskiye tseolity; polucheniye, issledovaniye i primeneniye
(Synthetic Zeolites: Production, Investigation, and Use). Mos-
cow, Izd-vo AN SSSR, 1962. 286 p. (Series: Its: Doklady)
Errata slip inserted. 2500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh
nauk. Komisiya po tseolitam.

Resp. Eds.: M. M. Dubinin, Academician and V. V. Serpinskiy, Doctor
of Chemical Sciences; Ed.: Ye. G. Zhukovskaya; Tech. Ed.: S. P.
Golub'.

PURPOSE: This book is intended for scientists and engineers engaged
in the production of synthetic zeolites (molecular sieves), and
for chemists in general.

Card 1/12 3

Synthetic Zeolites: (Cont.)

SOV/6246

COVERAGE: The book is a collection of reports presented at the First Conference on Zeolites, held in Leningrad 16 through 19 March 1961 at the Leningrad Technological Institute imeni Lensovet, and is purportedly the first monograph on this subject. The reports are grouped into 3 subject areas: 1) theoretical problems of adsorption on various types of zeolites and methods for their investigation, 2) the production of zeolites, and 3) application of zeolites. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

Foreword

Dubinin, M. M. Introduction

3

5

Card 2/12

Synthetic Zeolites: (Cont.)

SOV/6246

- Misin, M. S., L. M. Maksimova, V. A. Litvinova, and L. B. Khandros. Production and Adsorption Properties of NaA, NaP, CaA and CaP Zeolites 135
- Misin, M. S., L. M. Maksimova, V. A. Litvinova, L. B. Khandros, G. A. Polyakova, and L. S. Urin. Production and Adsorption Properties of NaX, CaX, and AgX Zeolites 143
- Piguzova, L. I., A. V. Agafonov, A. S. Vitukhina, V. F. Dmitriyeva, A. T. Slepneva, V. A. Burylov, and N. A. Chepurov. Synthesis Conditions and Thermal Stability of Type X Zeolites 152
- Mirskiy, Ya. V., M. G. Mitrofanov, and T. N. Bredikhina. Ion Exchange of Na for Ca in Type A Synthetic Zeolite 167
- Mirskiy, Ya. V., M. G. Mitrofanov, B. M. Popkov, L. T. Bolotov, and A. I. Mezhlumova. Production of Synthetic Zeolites Under Industrial Conditions 169

Card 1/12 315

MAKSIMOVA, L. N.

Frost cracking processes in the soils of the northwestern part
of Amur Province. Merzl. issl. no.1:90-99 '61.
(MIRA 16:1)

(Amur Province--Frozen ground)

MAKSIMOVA, L.N.

Seasonal freezing of ground in the construction area of the Bratsk
Hydroelectric Power Station. Mersl.issl. no.2:33-44 '61.

(MIRA 16:5)

(Bratsk Hydroelectric Power Station--Frozen ground)

KORYAGIN, K.V.; MAKSIMOVA, L.N.

Substituting emulsions for sizing mixtures. Tekst. prom.
20 no. 11:66-67 N '60. (MIRA 13:12)

1. Master fabriki imeni Krasina (for Koryagin).
(Flax) (Sizing (Textile))

L 19183-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AR3004208

S/0276/63/000/005/G049/G050

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 5G317

AUTHOR: Babich, Ye. P.; Voloshina, A. S.; Maksimova, L. N.; Saburov, V. P.;
Topaller, A. N.

TITLE: Study of causes of formation of sievelike porosity in cast steel

CITED SOURCE: Sb. Liteyn. proiz-vo. Omsk, 1962, 51-74

TOPIC TAGS: sievelike porosity, cast steel, porosity formation, sievelike porosity

TRANSLATION: Results of experiments confirmed the theory of sievelike porosity formation (SP). Conditions for formation of sievelike porosity are: simultaneous presence in liquid steel of hydrogen and ferrous oxide in quantities greater than critical at the time of formation of a hard skin on the cast; as well as a long time interval between filling the mold and skin formation on the surface of the cast. SP has been successfully artificially created by introducing as oxidizer manganese peroxide² into normally oxidized steel. A method has been developed for detection of SP by means of etching the cast surface after removing from it a 2 mm. layer. By utilizing the method of artificially obtaining SP and the method of its

Card 1/2

L 19183-63

ACCESSION NR: AR3004208

2

detection the effect of a number of factors affecting the formation of SP has been established and tested. These factors may be divided into those that contribute to the formation of SP (presence of humidity in the mold, additions etc; increase in filling density and hence a decrease in gas permeability of the mold; high temperature of casting), and those which either impair SP formation or completely eliminate it (increasing carbon content in steel, increase in ferrostatic pressure, sufficient thickness of cast walls and qualitative deoxidation of metal in the furnace, with a necessary quantity of aluminum in the ladle). Eight figures, twelve references.

DATE ACQ: 21Jun63

SUB CODE: IE, MA

ENCL: 00

Card 2/2

MAKSIMOVA, L. P.

"Biology of the Monodace of the Sea of Azov." Cand Biol Sci, Moscow Technical Inst of the Fish Industry and Economy imeni A. I. Mikoyan, 5 Mar 54. Dissertation (Vechernyaya Moskva Moscow, 24 Feb 54)

SO: SUM 186 19 Aug 1954

MAKSIMOVA, L.P.

USSR/Analysis of Inorganic Substances

G-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19572

Author : A. A. Popel', L. P. Maksimova

Inst : University of Kazan

Title : Photocolorimetric Determination of Niobium

Orig Pub: Uch. Zap. Kazansk. Un-ta, 1956, No 5, 86 - 90

Abstract: The method of determination of Nb as phosphate-molybdate-niobate blue (A.A. Davydova, Z.M. Vaysberg, Zavod. laboratoriya, 1947, 9, 1038) is improved. For the determination of Nb in alloy steels, the weighed sample of 0.1 g is dissolved in 8 - 10 ml of 6 n. H_2SO_4 . Fe is oxidized by adding several drops of concentrated HNO_3 . In order to avoid Nb hydrolysis, 5 ml of 2% HF are

Card 1/3

- 48 -

USSR/Analysis of Inorganic Substances

G-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19572

added and all is heated 10 min. The solution is transferred into a measuring flask of 50 ml capacity, 10 ml of 6 n. H_2SO_4 are added and the flask is filled up to the mark by adding water. An aliquot portion of the solution is transferred into another flask of 50 ml capacity, 1 ml of a 3% solution of sodium phosphate, 1 - 2 ml of 6 n. H_2SO_4 , 4 ml of a 2% solution of $(NH_4)_2NO_3$ and 12 - 20 ml of water are added. All is heated to 30° and kept at this temperature to complete the formation of the yellow phosphate-molybdate-niobate complex, after that 15 - 20 ml of 6 n. H_2SO_4 and, 20 - 30 sec. later, 1 ml of a 2% solution of $SnCl_2$ are added. The solution

Card 2/3

- 49 -

USSR/Analysis of Inorganic Substances

G-2

Abs Jour: Ref Zhur-khimiya, No 6, 1957, 19572

is diluted with water up to the mark and photo-colorimetered. The error does not exceed 6%. The duration is 30 - 35 min. Cr, Ni, Si, and Tl does not interfere, if their contents did not exceed the Nb content 350, 280, 140 and 2 - 4 times respectively.

Card 3/3

- 50 -

MAKSIMOVA, L.P.

Consumption of food by young-of-the-year hybrid carp in
ponds of the northwestern U.S.S.R. Trudy sov. Ikht.
kom. no.14:41-47 '62.. (MIRA 15:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut
ozernogo i rechnogo rybnogo khozyaystva - (GosNIORKh).
(Russia, Northwestern--Carp)
(Fishes--Food)

ZHIGALEV, N.V., inzhener; MAKSIMOVA, L.T.

Device for wood inlay work. Der.1 lesokhim.prom.3 no.1:24-25

Ja '54.

(MLRA 7:2)

1. Rizhskiy mebel'nyy kombinat No.1.

(Marquetry)

BERZIN'SH, G.V.; MAKSIMOVA, L.T.; APATSKAYA, N.A.

Finishing furniture parts by the dipping method. Der.pron 5
no.7:25-26 J1 '56. (MLRA 9:9)

1.Rizhskiy mebel'nyy kombinat No.1.
(Riga--Furniture industry)

MAKINOVA, I.V.

Adenosine triphosphatase (creatine phosphotransferase) activity in the
muscles and liver during muscular activity. Ukr. biochem. zhurn., 31
no.1:191-196, 1985. (MIRA 1815)

1. Section of Biochemistry of the Leningrad Research Institute
of Physical Culture.

ROGOZKIN, V.A.; MAKSIMOVA, L.V.

Effect of nicotinamide on the level of nicotinamide adenine dinucleotide
and nicotinamide adenine dinucleotide glycohydrolase activity in the
skeletal muscles and liver. Ukr. biokhim. zhur. 37 no.3:379-385 '65.
(MIRA 18:7)

1. Nauchno-issledovatel'skiy institut fizicheskoy kul'tury, Leningrad.

MAKSIKOVA, M.A.

Developing the garment industry in the sixth five-year plan. Leg.
prom. 16 no.9:4-6 S '56. (MLSA 9:11)
(Clothing industry) (Sewing)

MAKSIMOVA, M.D., inzh.

Cleaning of rayon fabrics and clothing. Tekst.prom. 21 no.1:96 Ja '61.
(MIRA 14:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut shelkovoy
promyshlennosti.
(Rayon—Cleaning)